

AMENDMENTS

In the Claims

Please amend claims 1, 18, 27, 39-42, 44-48, 50-54, 73, and 81 as shown herein.

Claims 1-86 are pending and are listed following:

1. **(currently amended)** A network system, comprising:
a first computer configured to maintain an object having an attribute, ~~the attribute~~ comprised of individual linked values, each linked value having conflict-resolution data;

a second computer configured to replicate the object to generate a replica object and maintain the replica object; and

the second computer further configured to resolve a replication conflict between a linked value of the attribute in the object and the linked value of the attribute in the replica object, the replication conflict being resolved with the conflict-resolution data associated with the linked values.

2. **(previously presented)** A network system as recited in claim 1, wherein the second computer is further configured to compare the conflict-resolution data associated with the linked value of the attribute in the object and the conflict-resolution data associated with the linked value of the attribute in the replica object to resolve the replication conflict.

1 **3. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a version indicator that corresponds
3 to a version of an individual linked value.

4
5 **4. (previously presented)** A network system as recited in claim 1,
6 wherein the conflict-resolution data comprises a version number that corresponds
7 to a version of an individual linked value, and wherein the second computer is
8 further configured to:

9 compare the version number associated with the linked value of the
10 attribute in the object and the version number associated with the linked value of
11 the attribute in the replica object to resolve the replication conflict; and

12 update the linked value of the attribute in the replica object if the linked
13 value has a lower version number than the linked value of the attribute in the
14 object.

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16 **5. (previously presented)** A network system as recited in claim 1,
17 wherein the conflict-resolution data comprises an update indicator that
18 corresponds to when an individual linked value is updated.

1 **6. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises an update timestamp that
3 corresponds to when an individual linked value is updated, and wherein the second
4 computer is further configured to:

5 compare the update timestamp associated with the linked value of the
6 attribute in the object and the update timestamp associated with the linked value of
7 the attribute in the replica object to resolve the replication conflict; and

8 update the linked value of the attribute in the replica object if the linked
9 value has an earlier update timestamp than the linked value of the attribute in the
10 object.

11
12 **7. (previously presented)** A network system as recited in claim 1,
13 wherein the conflict-resolution data comprises a creation indicator that
14 corresponds to when an individual linked value is created.

1 **8. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a creation timestamp that
3 corresponds to when an individual linked value is created, and wherein the second
4 computer is further configured to:

5 compare the creation timestamp associated with the linked value of the
6 attribute in the object and the creation timestamp associated with the linked value
7 of the attribute in the replica object to resolve the replication conflict; and

8 update the linked value of the attribute in the replica object if the linked
9 value has an earlier creation timestamp than the linked value of the attribute in the
10 object.

11
12 **9. (previously presented)** A network system as recited in claim 1,
13 wherein the conflict-resolution data comprises a version indicator that corresponds
14 to a version of an individual linked value and an update indicator that corresponds
15 to when the individual linked value is updated.

1 **10. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a version number that corresponds
3 to a version of an individual linked value and an update timestamp that
4 corresponds to when the individual linked value is updated, and wherein the
5 second computer is further configured to:

6 compare the conflict-resolution data associated with the linked value of the
7 attribute in the object and the conflict-resolution data associated with the linked
8 value of the attribute in the replica object; and

9 resolve the replication conflict in favor of the linked value that first has a
10 higher version number, and second has a later update timestamp.

1 **11. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a version number that corresponds
3 to a version of an individual linked value and an update timestamp that
4 corresponds to when the individual linked value is updated, and wherein the
5 second computer is further configured to:

6 compare the conflict-resolution data associated with the linked value of the
7 attribute in the object and the conflict-resolution data associated with the linked
8 value of the attribute in the replica object to resolve the replication conflict;

9 update the linked value of the attribute in the replica object if the linked
10 value has a lower version number than the linked value of the attribute in the
11 object; and

12 if the version number associated with the linked value of the attribute in the
13 replica object is equivalent to the version number associated with the linked value
14 of the attribute in the object, update the linked value of the attribute in the replica
15 object if the linked value has an earlier update timestamp than the linked value of
16 the attribute in the object.

17
18 **12. (previously presented)** A network system as recited in claim 1,
19 wherein the conflict-resolution data comprises a creation indicator that
20 corresponds to when an individual linked value is created, a version indicator that
21 corresponds to a version of the individual linked value, and an update indicator
22 that corresponds to when the individual linked value is updated.

1 **13. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a creation timestamp that
3 corresponds to when an individual linked value is created, a version number that
4 corresponds to a version of the individual linked value, and an update timestamp
5 that corresponds to when the individual linked value is updated, and wherein the
6 second computer is further configured to:

7 compare the conflict-resolution data associated with the linked value of the
8 attribute in the object and the conflict-resolution data associated with the linked
9 value of the attribute in the replica object; and

10 resolve the replication conflict in favor of the linked value that first has a
11 later creation timestamp, second has a higher version number, and third has a later
12 update timestamp.

1 **14. (previously presented)** A network system as recited in claim 1,
2 wherein the conflict-resolution data comprises a creation timestamp that
3 corresponds to when an individual linked value is created, a version number that
4 corresponds to a version of the individual linked value, and an update timestamp
5 that corresponds to when the individual linked value is updated, and wherein the
6 second computer is further configured to:

7 compare the conflict-resolution data associated with the linked value of the
8 attribute in the object and the conflict-resolution data associated with the linked
9 value of the attribute in the replica object to resolve the replication conflict;

10 update the linked value of the attribute in the replica object if the linked
11 value has an earlier creation timestamp than the linked value of the attribute in the
12 object;

13 if the creation timestamp associated with the linked value of the attribute in
14 the replica object is equivalent to the creation timestamp associated with the linked
15 value of the attribute in the object, update the linked value of the attribute in the
16 replica object if the linked value has a lower version number than the linked value
17 of the attribute in the object; and

18 if the version number associated with the linked value of the attribute in the
19 replica object is equivalent to the version number associated with the linked value
20 of the attribute in the object, update the linked value of the attribute in the replica
21 object if the linked value has an earlier update timestamp than the linked value of
22 the attribute in the object.

1 **15. (previously presented)** A network system as recited in claim 1,
2 wherein the individual linked values have an associated deletion indicator that is a
3 null identifier to indicate the existence of a linked value of the attribute in the
4 object.

5
6 **16. (previously presented)** A network system as recited in claim 1,
7 wherein the individual linked values have an associated deletion indicator that
8 corresponds to when an individual linked value is marked for deletion from the
9 attribute in the object.

10
11 **17. (previously presented)** A network system as recited in claim 1,
12 wherein the individual linked values have an associated deletion timestamp that
13 corresponds to when an individual linked value is marked for deletion from the
14 attribute in the object, and wherein the second computer is further configured to
15 delete a linked value from the attribute in the object if the linked value has a
16 deletion timestamp that indicates the linked value is marked for deletion.

1 **18. (currently amended)** A state-based replication system,
2 comprising:

3 an object having ~~an~~ a multi-valued attribute that includes a value which is a
4 reference link to multiple ~~comprised of~~ linked values, ~~individual linked values~~
5 each linked value having indicators to indicate a change to a corresponding linked
6 value of the attribute; and

7 a computing device configured to replicate the object and identify a change
8 to a linked value of the attribute by a change to one or more of the indicators
9 ~~associated with~~ corresponding to the linked value.

10
11 **19. (previously presented)** A state-based replication system as
12 recited in claim 18, wherein the computing device is further configured to:

13 maintain a replica object, the replica object being replicated from the
14 object; and

15 compare the object with the replica object to identify, with the indicators, a
16 linked value replication conflict.

17
18 **20. (previously presented)** A state-based replication system as
19 recited in claim 18, wherein the indicators comprise a version indicator that
20 corresponds to a version of a linked value.

21
22 **21. (previously presented)** A state-based replication system as
23 recited in claim 18, wherein the indicators comprise an update indicator that
24 corresponds to when a linked value is changed.
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1 **22. (previously presented)** A state-based replication system as
2 recited in claim 18, wherein the indicators comprise a creation indicator that
3 corresponds to when a linked value is created.

4
5 **23. (previously presented)** A state-based replication system as
6 recited in claim 18, wherein the indicators comprise a version number that
7 corresponds to a version of a linked value and an update timestamp that
8 corresponds to when the linked value is changed.

9
10 **24. (previously presented)** A state-based replication system as
11 recited in claim 18, wherein the indicators comprise a creation timestamp that
12 corresponds to when a linked value is created; a version number that corresponds
13 to a version of the linked value, and an update timestamp that corresponds to when
14 the linked value is changed.

15
16 **25. (previously presented)** A state-based replication system as
17 recited in claim 18, wherein the indicators comprise a deletion indicator that has a
18 null identifier to indicate the existence of a linked value of the attribute.

19
20 **26. (previously presented)** A state-based replication system as
21 recited in claim 18, wherein the indicators comprise a deletion timestamp that
22 corresponds to when a linked value is marked for deletion from the attribute.
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1 **27. (currently amended)** A state-based replication system,
2 comprising:

3 a first computer configured to maintain a first data structure, the first data
4 structure having a multi-valued attribute that includes a reference link to
5 ~~comprised of~~ multiple linked values, ~~individual linked values~~ each linked value
6 having conflict-resolution information to indicate a change to a corresponding
7 linked value of the attribute;

8 a second computer configured to maintain a second data structure having
9 the multi-valued attribute that includes the reference link to ~~comprised of~~ the
10 multiple linked values; and

11 the first and second data structures configured to be replicated and to have a
12 replication conflict between a linked value of the attribute in the first data structure
13 and a linked value of the attribute in the second data structure resolved with the
14 conflict-resolution information associated with the linked values.

1 **28. (previously presented)** A state-based replication system as
2 recited in claim 27, wherein the first and second computers are further configured
3 to:

4 compare the conflict-resolution information associated with the linked
5 value of the attribute in the first data structure with the conflict-resolution
6 information associated with the linked value of the attribute in the second data
7 structure;

8 identify a replication conflict; and

9 resolve the replication conflict with the conflict-resolution information
10 associated with the linked values.

11
12 **29. (original)** A state-based replication system as recited in claim 27,
13 wherein the conflict-resolution information comprises a version indicator that
14 corresponds to a version of an individual linked value.

1 **30. (original)** A state-based replication system as recited in claim 27,
2 wherein:

3 the conflict-resolution information comprises a version number that
4 corresponds to a version of an individual linked value;

5 the first and second computers are further configured to compare the
6 version number associated with the linked value of the attribute in the first data
7 structure with the version number associated with the linked value of the attribute
8 in the second data structure;

9 the first computer is further configured to update the linked value of the
10 attribute in the first data structure if the linked value has a lower version number
11 than the linked value of the attribute in the second data structure; and

12 the second computer is further configured to update the linked value of the
13 attribute in the second data structure if the linked value has a lower version
14 number than the linked value of the attribute in the first data structure.

15
16 **31. (original)** A state-based replication system as recited in claim 27,
17 wherein the conflict-resolution information comprises an update indicator that
18 corresponds to when an individual linked value is changed.

1 **32. (original)** A state-based replication system as recited in claim 27,
2 wherein:

3 the conflict-resolution information comprises an update timestamp that
4 corresponds to when an individual linked value is changed;

5 the first and second computers are further configured to compare the update
6 timestamp associated with the linked value of the attribute in the first data
7 structure with the update timestamp associated with the linked value of the
8 attribute in the second data structure;

9 the first computer is further configured to update the linked value of the
10 attribute in the first data structure if the linked value has an earlier update
11 timestamp than the linked value of the attribute in the second data structure; and

12 the second computer is further configured to update the linked value of the
13 attribute in the second data structure if the linked value has an earlier update
14 timestamp than the linked value of the attribute in the first data structure.

15
16 **33. (original)** A state-based replication system as recited in claim 27,
17 wherein the conflict-resolution information comprises a creation indicator that
18 corresponds to when an individual linked value is created.

1 **34. (original)** A state-based replication system as recited in claim 27,
2 wherein:

3 the conflict-resolution information comprises a creation timestamp that
4 corresponds to when an individual linked value is created;

5 the first and second computers are further configured to compare the
6 creation timestamp associated with the linked value of the attribute in the first data
7 structure with the creation timestamp associated with the linked value of the
8 attribute in the second data structure;

9 the first computer is further configured to update the linked value of the
10 attribute in the first data structure if the linked value has an earlier creation
11 timestamp than the linked value of the attribute in the second data structure; and

12 the second computer is further configured to update the linked value of the
13 attribute in the second data structure if the linked value has an earlier creation
14 timestamp than the linked value of the attribute in the first data structure.

15
16 **35. (original)** A state-based replication system as recited in claim 27,
17 wherein the conflict-resolution information comprises a version indicator that
18 corresponds to a version of an individual linked value and an update indicator that
19 corresponds to when the individual linked value is changed.
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1 **36. (original)** A state-based replication system as recited in claim 27,
2 wherein the conflict-resolution information comprises a creation indicator that
3 corresponds to when an individual linked value is created, a version indicator that
4 corresponds to a version of the individual linked value, and an update indicator
5 that corresponds to when the individual linked value is changed.

6
7 **37. (original)** A state-based replication system as recited in claim 27,
8 wherein the individual linked values have an associated deletion indicator that is a
9 null identifier to indicate the existence of a linked value of the multi-valued
10 attribute.

11
12 **38. (original)** A state-based replication system as recited in claim 27,
13 wherein the individual linked values have an associated deletion indicator that
14 corresponds to when an individual linked value is marked for deletion from the
15 multi-valued attribute.

1 **39. (currently amended)** A computer-readable medium having
2 stored thereon a first data structure and a second data structure, comprising:

3 a first data field of the first data structure containing an attribute;

4 a second data field of the first data structure containing a ~~linked~~ value of the
5 attribute contained in the first data field, the value being a reference link to
6 multiple linked values contained in the second data structure;

7 a ~~third~~ first data field of the second data structure containing a version
8 indicator corresponding to a version of ~~the~~ a linked value contained in the second
9 data field structure; and

10 a ~~fourth~~ second data field of the second data structure containing an update
11 indicator corresponding to when the version indicator contained in the ~~third~~ first
12 data field of the second data structure is changed.

13
14 **40. (currently amended)** A computer-readable medium as recited
15 in claim 39, wherein the second data structure further comprises a ~~fifth~~ third data
16 field containing a creation indicator corresponding to when the linked value
17 contained in the second data ~~field~~ structure is created.

18
19 **41. (currently amended)** A computer-readable medium as recited
20 in claim 39, wherein the second data structure further comprises a ~~sixth~~ third data
21 field containing a deletion indicator corresponding to the linked value contained in
22 the second data ~~field~~ structure and configured to indicate when the linked value is
23 marked for deletion from the second data structure.

1 **42. (currently amended)** A network system, comprising:

2 a first computer configured to replicate objects at an attribute level, and
3 further configured to maintain an object having a multi-valued attribute,~~the~~
4 ~~multi-valued attribute comprised of~~ that includes a value which is a reference link
5 to multiple linked values;

6 a second computer configured to replicate the objects at an attribute value
7 level, and further configured to maintain a second object,~~the second object~~ having
8 a the multi-valued attribute ~~comprised of~~ that includes the reference link to the
9 multiple linked values, ~~the multiple linked values~~ each linked value configured to
10 have conflict-resolution data;

11 the first computer further configured to:

12 replicate the second object from the second computer; and

13 resolve a replication conflict between the object and the second
14 object at the attribute value level with the conflict-resolution data
15 associated with a linked value.

16
17 **43. (original)** A network system as recited in claim 42, wherein the
18 first computer first resolves the replication conflict between the object and the
19 second object at the attribute level, and second resolves the replication conflict
20 between the object and the second object at the attribute value level.

21
22 **44. (currently amended)** A network system as recited in claim 42,
23 wherein the first computer does not replicate a linked value from the second object
24 if the linked value does not have conflict-resolution data.

1 **45. (currently amended)** A network system as recited in claim 42,
2 wherein the first computer does not replicate a linked value from the second object
3 if the linked value has null conflict-resolution data.

4
5 **46. (currently amended)** A network system as recited in claim 42,
6 wherein the first computer resolves the replication conflict between the object and
7 the second object at the attribute value level in favor of a linked value that has
8 conflict-resolution data.

9
10 **47. (currently amended)** A network system as recited in claim 42,
11 wherein the first computer resolves the replication conflict between the object and
12 the second object at the attribute value level in favor of a linked value that has
13 non-null conflict-resolution data.

14
15 **48. (currently amended)** A network system as recited in claim 42,
16 wherein the second computer is further configured to:
17 replicate the object from the first computer; and
18 resolve a replication conflict between the object and the second object at
19 the attribute value level with the conflict-resolution data associated with a linked
20 value.

1 **49. (original)** A network system as recited in claim 48, wherein the
2 second computer first resolves the replication conflict between the object and the
3 second object at the attribute level, and second resolves the replication conflict
4 between the object and the second object at the attribute value level.

5
6 **50. (currently amended)** A network system as recited in claim 48,
7 wherein the second computer does not replicate a linked value from the object if
8 the linked value does not have conflict-resolution data.

9
10 **51. (currently amended)** A network system as recited in claim 48,
11 wherein the second computer does not replicate a linked value from the object if
12 the linked value has null conflict-resolution data.

13
14 **52. (currently amended)** A network system as recited in claim 48,
15 wherein the second computer resolves the replication conflict between the object
16 and the second object at the attribute value level in favor of a linked value that has
17 conflict-resolution data.

18
19 **53. (currently amended)** A network system as recited in claim 48,
20 wherein the second computer resolves the replication conflict between the object
21 and the second object at the attribute value level in favor of a linked value that has
22 non-null conflict-resolution data.

1 **54. (currently amended)** A network system as recited in claim 48,
2 wherein the second computer is further configured to delete a linked value from
3 the second object if the linked value does not have conflict resolution data, and if
4 the linked value is not replicated from the object.

5
6 **55. (previously presented)** A method, comprising:
7 replicating an object stored in a first directory with a replica object stored in
8 a second directory, the object and the replica object each having an attribute
9 comprised of multiple linked values, the multiple linked values each having
10 conflict-resolution data;

11 comparing an individual linked value of the attribute in the object with an
12 individual linked value of the attribute in the replica object to identify a replication
13 conflict; and

14 resolving the replication conflict with the conflict-resolution data associated
15 with the individual linked values.

16
17 **56. (previously presented)** A method as recited in claim 55, wherein
18 the conflict-resolution data comprises a version number that corresponds to a
19 version of an individual linked value, and wherein said comparing comprises
20 determining if an individual linked value version number has been changed.

1 **57. (previously presented)** A method as recited in claim 55, wherein
2 the conflict-resolution data comprises a version number that corresponds to a
3 version of an individual linked value, said comparing comprises determining if an
4 individual linked value version number has been changed, and the method further
5 comprises updating the individual linked value of the attribute that has a lower
6 version number with the individual linked value of the attribute that has a higher
7 version number.

8
9 **58. (previously presented)** A method as recited in claim 55, wherein
10 the conflict-resolution data comprises an update timestamp that corresponds to
11 when an individual linked value is changed, and wherein said comparing
12 comprises determining if an individual linked value update timestamp has been
13 changed.

14
15 **59. (previously presented)** A method as recited in claim 55, wherein
16 the conflict-resolution data comprises an update timestamp that corresponds to
17 when an individual linked value is changed, said comparing comprises
18 determining if an individual linked value update timestamp has been changed, and
19 the method further comprises updating the individual linked value of the attribute
20 that has an earlier update timestamp with the individual linked value of the
21 attribute that has a later update timestamp.

1 **60. (previously presented)** A method as recited in claim 55, wherein
2 the conflict-resolution data comprises a creation timestamp that corresponds to
3 when an individual linked value is created, and wherein said comparing comprises
4 determining if a creation timestamp has been changed.

5
6 **61. (previously presented)** A method as recited in claim 55, wherein
7 the conflict-resolution data comprises a creation timestamp that corresponds to
8 when an individual linked value is created, said comparing comprises determining
9 if a creation timestamp has been changed, and the method further comprises
10 updating the individual linked value of the attribute that has an earlier creation
11 timestamp with the individual linked value of the attribute that has a later creation
12 timestamp.

13
14 **62. (previously presented)** A method as recited in claim 55, wherein
15 the conflict-resolution data comprises a version number that corresponds to a
16 version of an individual linked value and an update timestamp that corresponds to
17 when the individual linked value is changed, and wherein said comparing
18 comprises determining if a an individual linked value version number has been
19 changed and if the individual linked value update timestamp has been changed.
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1 **63. (previously presented)** A method as recited in claim 55, wherein
2 the conflict-resolution data comprises a version number that corresponds to a
3 version of an individual linked value and an update timestamp that corresponds to
4 when the individual linked value is changed, and the method further comprises
5 updating the individual linked value of the attribute that first has a lower version
6 number, and second has an earlier update timestamp.

7
8 **64. (original)** A computer-readable medium comprising computer
9 executable instructions that, when executed, direct a computing system to perform
10 the method of claim 63.

11
12 **65. (previously presented)** A method as recited in claim 55, wherein
13 the conflict-resolution data comprises a creation timestamp that corresponds to
14 when an individual linked value is created, a version number that corresponds to a
15 version of the individual linked value, and an update timestamp that corresponds
16 to when the individual linked value is changed, and wherein said comparing
17 comprises determining if a an individual linked value creation timestamp has been
18 changed, if the individual linked value version number has been changed, and if
19 the individual linked value update timestamp has been changed.

1 **66. (previously presented)** A method as recited in claim 55, wherein
2 the conflict-resolution data comprises a creation timestamp that corresponds to
3 when an individual linked value is created, a version number that corresponds to a
4 version of the individual linked value, and an update timestamp that corresponds
5 to when the individual linked value is changed, and the method further comprises
6 updating the individual linked value of the attribute that first has an earlier
7 creation timestamp, second has a lower version number, and third has an earlier
8 update timestamp.

9
10 **67. (original)** A computer-readable medium comprising computer
11 executable instructions that, when executed, direct a computing system to perform
12 the method of claim 66.

13
14 **68. (previously presented)** A method as recited in claim 55, wherein
15 the individual linked values have a deletion timestamp that is a null identifier to
16 indicate the existence of a linked value of the attribute.

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18 **69. (previously presented)** A method as recited in claim 55, wherein
19 the individual linked values have a deletion timestamp that corresponds to when
20 an individual linked value is marked for deletion from the attribute.
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1 **70. (previously presented)** A method as recited in claim 55, wherein
2 the individual linked values have a deletion timestamp that corresponds to when
3 an individual linked value is marked for deletion from the attribute, and the
4 method further comprises deleting a linked value from the attribute if the linked
5 value has a deletion timestamp that indicates the linked value is marked for
6 deletion.

7
8 **71. (original)** A computer-readable medium comprising computer
9 executable instructions that, when executed, direct a computing system to perform
10 the method of claim 70.

11
12 **72. (original)** A computer-readable medium comprising computer
13 executable instructions that, when executed, direct a computing system to perform
14 the method of claim 55.

1 **73. (currently amended)** A method for replicating a linked value
2 of a multi-valued attribute contained in an object, the linked value having
3 conflict-resolution information and replicated from a replica object having the
4 multi-valued attribute and the linked value, the method comprising:

5 comparing the conflict-resolution information associated with the linked
6 value in the object with the conflict-resolution information associated with the
7 linked value in the replica object;

8 identifying a replication conflict with the conflict-resolution information
9 associated with the linked values; and

10 resolving the replication conflict with the conflict-resolution information.

11
12 **74. (original)** A method as recited in claim 73, wherein the
13 conflict-resolution information comprises a version number that corresponds to a
14 version of the linked value, and the method further comprising:

15 determining if the linked value version number has been changed; and

16 updating the linked value of the attribute that has a lower version number
17 with the linked value of the attribute that has a higher version number.

18
19 **75. (original)** A method as recited in claim 73, wherein the
20 conflict-resolution information comprises an update timestamp that corresponds to
21 when the linked value is changed, and the method further comprising:

22 determining if the linked value update timestamp has been changed; and

23 updating the linked value of the attribute that has an earlier update
24 timestamp with the linked value of the attribute that has a later update timestamp.
25

1 **76. (original)** A method as recited in claim 73, wherein the
2 conflict-resolution information comprises a creation timestamp that corresponds to
3 when the linked value is created, and the method further comprising:

4 determining if the linked value creation timestamp has been changed; and
5 updating the linked value of the attribute that has an earlier creation
6 timestamp with the linked value of the attribute that has a later creation timestamp.

7
8 **77. (original)** A method as recited in claim 73, wherein the
9 conflict-resolution information comprises a creation timestamp that corresponds to
10 when the linked value is created, a version number that corresponds to a version of
11 the linked value, and an update timestamp that corresponds to when the linked
12 value is changed.

13
14 **78. (original)** A method as recited in claim 73, wherein the
15 conflict-resolution information comprises a creation timestamp that corresponds to
16 when the linked value is created, a version number that corresponds to a version of
17 the linked value, and an update timestamp that corresponds to when the linked
18 value is changed, and the method further comprises updating the linked value of
19 the attribute if the linked value first has an earlier creation timestamp, second has a
20 lower version number, and third has an earlier update timestamp.

21
22 **79. (original)** A computer-readable medium comprising computer
23 executable instructions that, when executed, direct a computing system to perform
24 the method of claim 78.
25

1 **80. (original)** A computer-readable medium comprising computer
2 executable instructions that, when executed, direct a computing system to perform
3 the method of claim 73.

4
5 **81. (previously presented)** A method, comprising:
6 replicating a first object with a second object, the first object having an
7 attribute that includes a value which is a reference link to ~~comprised of~~ multiple
8 linked values, the second object having an attribute that includes a value which is
9 the reference link to the ~~comprised of~~ multiple linked values, each linked value
10 configured to have associated conflict-resolution data;
11 resolving first a replication conflict between the first object and the second
12 object at an attribute level; and
13 resolving second, ~~with the conflict-resolution data,~~ a replication conflict
14 between the first object and the second object at an attribute value level with the
15 conflict-resolution data associated with the multiple linked values.

16
17 **82. (previously presented)** A method as recited in claim 81, further
18 comprising determining whether a linked value corresponding to the second object
19 has conflict-resolution data and said replicating the linked value if said
20 determining that the linked value has conflict-resolution data.

1 **83. (previously presented)** A method as recited in claim 81, further
2 comprising determining whether a linked value corresponding to the second object
3 has non-null conflict-resolution data and said replicating the linked value if said
4 determining that the linked value has non-null conflict-resolution data.

5
6 **84. (previously presented)** A method as recited in claim 81, said
7 resolving the replication conflict between the first object and the second object at
8 the attribute value level in favor of a linked value that has conflict-resolution data.

9
10 **85. (previously presented)** A method as recited in claim 81, further
11 comprising deleting a linked value corresponding to the second object if the linked
12 value does not have conflict-resolution data and if the linked value is not
13 replicated.

14
15 **86. (original)** A computer-readable medium comprising computer
16 executable instructions that, when executed, direct a computing system to perform
17 the method of claim 81.
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